To: Vaughn, Stephanie[Vaughn.Stephanie@epa.gov]
Cc: Sharon Budney[BudneySL@cdmsmith.com]; Gary.Foster@CH2M.com[Gary.Foster@CH2M.com]; George.Hicks@CH2M.com[George.Hicks@CH2M.com]; Jennifer.Wilkie@CH2M.com[Jennifer.Wilkie@CH2M.com]; Mike.Jury@CH2M.com[Mike.Jury@CH2M.com]; John Rolfe[jrolfe@demaximis.com]; Willard Potter[otto@demaximis.com]; Robert Law[rlaw@demaximis.com]; Hoppe, Michael[Hoppe.Michael@epa.gov]
From: Stan Kaczmarek
Sent: Tue 10/29/2013 7:08:25 PM
Subject: Re: Capping and Air Monitoring Plan....

Stephanie,

EPA's October 24 request that the Capping Plan be modified to monitor cores of the cap material for Total Carbon appears aimed at having CPG confirm that there is adequate AquaGate distributed in the cap for it to meet its design function. The RM 10.9 Removal Action design depends on there being a nominal 30% by volume AquaGate component in the active layer, and no less than 25%. This correlates to a range of 21.2% to 25.7% AquaGate by mass.

Neither CPG nor AquaBlok, the manufacturer of AquaGate believes that measuring Total Carbon in a series of cores will provide any useful or actionable data. Both CPG and AquaBlok believe that direct measurement of how much AquaGate and sand are applied is the preferred approach, and that is already a component of the Capping Plan.

Specifically the Capping Plan already requires that the applied mass of both sand and AquaGate be measured and recorded each day. From that record, a determination can be made of the % AquaGate in the mixture. This will provide an upper bound for the AquaGate percentage in the active layer, assuming that AquaGate behaves as designed and settles as quickly as sand through the water column.

To determine the lower bound, AquaBlok is currently performing settling tests to determine the mass and concentration of carbon fines that can be generated when the proposed RM 10.9 sand and AquaGate mixture is dropped through a 4 foot column of water, Though it is expected that most of those fines will settle within the RM 10.9 Removal Area, CPG will calculate how much loss of AquaGate could occur if those fines instead exited the Removal Area. Using these data, CPG will adjust the application rate to make sure that the lower bound of 21.2% AquaGate mass in sand is present throughout the Removal Area.

When the results of AquaBlok's testing for fines generation is available, expected within the week, they will be shared with EPA.

Please contact me if you have any additional questions.
Stan

Stan Kaczmarek, PE
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>>> On 10/24/2013 at 2:00 PM, in message
<93733732f63c4efcb10d91c166f109a4@BL2PR09MB017.namprd09.prod.outlook.com>,
"Vaughn, Stephanie" <Vaughn.Stephanie@epa.gov> wrote:

Hi Stan,

We have completed our review of both the capping and air monitoring plans. We have 2 additional comments, one on each plan:

1. For the capping plan: Please analyze a subset of the post-placement cores that you collect of the sand/AquaGate mixture for TOC. This will further assist us in determining if the mixture retains its proper proportions after it is placed. To establish s a baseline, a few samples of the mixture prior to placement should also be analyzed for TOC.

2. For the air monitoring plan: Although sampling locations are identified (and acceptable) the frequency of sampling is not clearly indicated. Please clarify the frequency of monitoring anticipated.

Thanks,

Stephanie